REMARKS/ARGUMENTS

Claims 23, 25, 28, 29, and 32-39 are pending in this application. By this Amendment, Applicant AMENDS claims 23, 25, and 28 and CANCELS claims 24, 26, and 30.

Claims 23-26, 28-30, and 32-39 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Shigeyama (JP 2004-063504).

As indicated above, Applicant has canceled claims 24, 26, and 30. Applicant respectfully traverses the rejections of claims 23, 25, 28, 29 and 32-39.

Claim 23 has been amended to recite:

> A method for fabricating a semiconductor device, the method including:
> forming an amorphous silicon film on a substrate;
> preprocessing the amorphous silicon film by modifying the amorphous silicon film to prepare the amorphous silicon film to be made polycrystalline;
> laser processing the amorphous silicon film modified through the preprocessing step for producing a polycrystalline silicon film; and
> **laser power inspecting/extracting**
> **for inspecting for the presence of a foreign object or an abnormality in the preprocessing step by imaging by use of the amorphous silicon film having undergone the preprocessing step**, and
> **for performing laser preprocessing on a predetermined region of the amorphous silicon film having undergone the preprocessing while varying laser power as an irradiated spot moves, and performing inspection using spectroscopy at each of a plurality of positions at which the laser processing has been performed at different laser powers, to determine a laser power based on a result of the inspection**; wherein
> the laser processing step uses the laser power determined in the laser power inspection/extraction step. (emphasis added)

The Examiner alleged that "[Shigeyama] teaches a chemical vapor deposition process for producing semiconductor devices for forming amorphous film on a substrate, and irradiating the film multiple times to control the crystalline thickness and distribution of the film using a laser. The power of the laser can be altered and controlled to change the crystalline film's morphology. [Shigeyama] using a control system while the amorphous film and production of a crystal film is completed by an annealing treatment, based on a degree of crystallinity obtained."

Applicant has amended claim 23 to recite the method step of "laser power

inspecting/extracting for inspecting for the presence of a foreign object or an abnormality in the preprocessing step by imaging by use of the amorphous silicon film having undergone the preprocessing step, and for performing laser preprocessing on a predetermined region of the amorphous silicon film having undergone the preprocessing while varying laser power as an irradiated spot moves, and performing inspection using spectroscopy at each of a plurality of positions at which the laser processing has been performed at different laser powers, to determine a laser power based on a result of the inspection." Support for this method step is found, for example, in paragraphs [0067], [0077], [0114]-[0118], and [0123]-[0137] of Applicant's substitute specification and Applicant's previously presented claim 24.

Shigeyama does not teach or suggest this method step.

Shigeyama teaches an amorphous silicon layer 6 being coated with an oxidizing liquid to form an oxide film 7, as shown in Fig. 4(b) and discussed in paragraph [0027] of the English machine translation of Shigeyama. After forming this oxide film 7, catalyst sedimentary layers 8 are formed on the top of the oxide film 7, the amorphous silicon layer 6 is heated, and laser annealing equipment 3 is used to irradiate the amorphous silicon layer 6 with laser light while the irradiated spot is moved at a constant laser power to form a crystal film.

Shigeyama also teaches inspecting a crystal film 2 with testing equipment 1, as shown in Fig. 2 of Shigeyama. During this inspecting, an image taken of the crystal film formed by the above method and the distribution characteristics of a density value are determined to evaluate crystallinity determined based on white concentration values 26 and black concentration values 27, as shown in Figs. 11 and 12 and discussed in paragraph [0035] of the English machine translation of Shigeyama. Based on the result of the evaluation, a determination is made as to whether the laser energy value (laser power) is either too high or too low and the laser power of the laser can be corrected, as shown in Fig. 6 of Shigeyama.

Conversely, in the method presently recited in Applicant's claim 23, laser processing is performed on a predetermined region of the amorphous silicon film that has undergone the preprocessing while varying the laser power while the moving the irradiated spot, and inspection using spectroscopy is performed at each of a plurality of positions at which the laser

processing has been performed at different laser powers, so that the laser power is determined based on the results of the inspection. Additionally, Applicant's claim 23 also recites that inspection by imaging permits inspecting for a foreign object or an abnormality in the preprocessing step when the laser power is determined. Accordingly, this makes it possible to readily recognize a defect in the presence of which laser processing should not be performed, and thus helps reduce loss in production.

Thus, Shigeyama clearly fails to teach or suggest the method step of "laser power inspecting/extracting for inspecting for the presence of a foreign object or an abnormality in the preprocessing step by imaging by use of the amorphous silicon film having undergone the preprocessing step, and for performing laser preprocessing on a predetermined region of the amorphous silicon film having undergone the preprocessing while varying laser power as an irradiated spot moves, and performing inspection using spectroscopy at each of a plurality of positions at which the laser processing has been performed at different laser powers, to determine a laser power based on a result of the inspection" as recited in Applicant's claim 23.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claim 23 under 35 U.S.C. § 103(a) as being unpatentable over Shigeyama.

In view of the foregoing amendments and remarks, Applicant respectfully submits that claim 23 is allowable. Claims 25, 28, 29, and 32-39 depend upon claim 23, and are therefore allowable for at least the reasons that claim 23 is allowable.

In view of the foregoing amendments and remarks, Applicant respectfully submits that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

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